



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/717,830

11/20/2003

David G. Conroy

MSFT121952

8567

26389

7590

02/05/2008

CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC

1420 FIFTH AVENUE

SUITE 2800

SEATTLE, WA 98101-2347

EXAMINER

ZHEN, LI B

ART UNIT

PAPER NUMBER

2194

MAIL DATE

DELIVERY MODE

02/05/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/717,830

Applicant(s)

CONROY ET AL.

Examiner

Li B. Zhen

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/22/2007.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1 – 26 are pending in the application.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1 – 6, 16, 21 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,643,650 to Slaughter et al. [hereinafter Slaughter].**

4. As to claim 1, Slaughter teaches a device in a networked system [computing environment may be distributed over the Internet; col. 17, lines 20 – 38] that is a computer subsystem [device may be a networking transport addressable unit; col. 17, lines 50 – 65], comprising:

one or more services executing in the device [clients 110 and services 112 may or may not reside within the same network device; col. 17, lines 37 – 50], each service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run

on devices; col. 17, lines 50 – 65] and a contract for describing one or more behaviors of the service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55].

5. As to claim 6, Slaughter teaches in a networked computer system [col. 17, lines 20 – 38], a terminal service [col. 17, lines 50 – 65], comprising:

a display service [display service; col. 79, lines 10 – 47] with a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65] and a contract for describing one or more behaviors of the display service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55].

6. As to claim 16, Slaughter teaches a computer-implemented method for processing input/output events by devices as services, the method comprising:

requesting a service representing a device for an input/output event [event gate may subscribe itself as a consumer of that event; col. 32, lines 2 – 11], the service

including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65] and a contract for describing one or more behaviors of the service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55];

receiving a customizable, tag-based message that contains the input/output event [event message may contain an XML event document; col. 32, lines 10 – 23]; and

requesting the service to remove the input/output event [XML event document is removed from the message and the process of distribution begins; col. 32, lines 10 – 32].

7. As to claim 21, this is a product claim that corresponds to method claim 16; see the rejection to claim 16 above, which also meets this product claim.

8. As to claim 26, Slaughter teaches in a networked system [computing environment may be distributed over the Internet; col. 17, lines 20 – 38], a device that is a computer subsystem [device may be a networking transport addressable unit; col. 17, lines 50 – 65], comprising:

one or more services executing in the device [clients 110 and services 112 may or may not reside within the same network device; col. 17, lines 37 – 50], each service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65], the device being capable of coupling to the networked system to exchange customizable, tag-based messages [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55].

9. As to claim 2, Slaughter teaches wherein the one or more services comprise an information service, the information service being capable of producing a customizable, tag-based document for describing the capabilities of the device [col. 33, lines 36 – 50 and col. 36, lines 47 – 62].

10. As to claim 3, Slaughter teaches wherein the one or more services comprise a data service, the data service being capable of storing input/output events generated by the device and further being capable of responding to queries regarding the input/output events [Message gates may also support publish and subscribe message passing for events; col. 31, line 60 – col. 32, line 3].

11. As to claim 4, Slaughter teaches a network device driver [col. 15, lines 30 – 48].
12. As to claim 5, Slaughter teaches a decentralized operating system on which the one or more services are executed [distributed computing environment; col. 14, lines 20 – 43].

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**15. Claims 7 – 15, 17 – 20 and 22 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaughter in view of U.S. Patent No. 7,269,664 to Hutsch et al. [hereinafter Hutsch].**

16. As to claim 7, Slaughter teaches one or more services executing in the device [clients 110 and services 112 may or may not reside within the same network device; col. 17, lines 37 – 50], each service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65] and a contract for describing one or more behaviors of the service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55]. Slaughter does not specifically disclose a cursor shape service.

However, Hutsch teaches a display service includes a cursor shape service for describing the shape on an on-screen cursor [scroll action is interpreted by the windowing environment on user device 102i and a scroll command is set by the windowing environment to the remote window frame of the lightweight remote visualization component on user device 102i; col. 23, lines 16 – 40].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Slaughter to include the features of Hutsch.



One of ordinary skill in the art would have been motivated to make the combination because this unifies the user interfaces to services and unification of the user interface framework allows users to experience a contiguous “surfing” metaphor for interactions [col. 5, lines 31 – 55 of Hutsch].

17. As to claim 8, Slaughter as modified teaches the display service includes a cursor position service for describing the position of an on-screen cursor [col. 48, lines 18 – 23 of Hutsch], the cursor position service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a contract for describing one or more behaviors of the cursor position service [col. 23, lines 25 – 55 of Slaughter].

18. As to claim 9, Slaughter as modified teaches wherein the display service includes a window service for describing a window [col. 22, lines 18 – 30 of Hutsch], the window service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a contract for describing one or more behaviors of the window service [col. 23, lines 25 – 55 of Slaughter].

19. As to claim 10, Slaughter as modified teaches wherein the display service includes a window list service [col. 15, lines 30 – 43 of Hutsch] for containing a list of window services appearing on a display, the window list service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 –

col. 39, line 19 of Slaughter] and a contract for describing one or more behaviors of the window list service [col. 23, lines 25 – 55 of Slaughter].

20. As to claim 11, Slaughter as modified teaches wherein the display service includes a window update service for refreshing a window represented by a window service [col. 23, lines 30 – 40 of Hutsch], the window update service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a contract for describing one or more behaviors of the window update service [col. 23, lines 25 – 55 of Slaughter].

21. As to claim 12, Slaughter teaches a keyboard service [col. 93, lines 35 – 49] with a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19] and a contract for describing one or more behaviors of the keyboard service [col. 23, lines 25 – 55].

22. As to claim 13, Slaughter teaches wherein the keyboard service includes an data service for containing keyboard events generated by a keyboard [col. 32, lines 2 – 11], the data service being capable of responding to queries to remove keyboard events for processing [col. 32, lines 10 – 32].

23. As to claim 14, Slaughter teaches a mouse service [col. 23, lines 16 – 40 of Hutsch], the mouse service including a port identifiable by an identifier that includes a

uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a contract for describing one or more behaviors of the mouse service [col. 23, lines 25 – 55 of Slaughter].

24. As to claim 15, Slaughter teaches wherein the mouse service includes a data service for containing mouse events generated by a mouse [col. 32, lines 2 – 11], the data service being capable of responding to queries to remove mouse events for processing [col. 32, lines 10 – 32].

25. As to claim 17, Slaughter as modified teaches requesting the service for creating a window, the act of creating a window creating a window service [col. 22, lines 17 – 30 of Hutsch] with a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a contract for describing one or more behaviors of the window service [col. 23, lines 25 – 55 of Slaughter].

26. As to claim 18, Slaughter as modified teaches comprising requesting the service for refreshing the window, the act of requesting invoking a window update service, which repaints the window [col. 23, lines 30 – 40 of Hutsch].

27. As to claim 19, Slaughter as modified teaches requesting the service to change a cursor shape, the act of requesting invoking a cursor shape service, which changes the shape of the cursor [col. 23, lines 16 – 40 of Hutsch].

28. As to claim 20, Slaughter as modified teaches requesting the service to change a position of a cursor, the act of requesting invoking a cursor position service, which changes the position of the cursor [col. 48, lines 18 – 23 of Hutsch].

29. As to claims 22 – 25, these are product claims that correspond to method claims 17 – 20; see the rejections to claims 17 – 20 above which also meet these product claims.

### ***Conclusion***

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,895,588 discloses a method for remotely accessing devices over a network.

### **CONTACT INFORMATION**

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/717,830  
Art Unit: 2194

Page 12

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen  
Primary Examiner  
Art Unit 2194

lbz

A handwritten signature in black ink, appearing to be 'Li B. Zhen', written in a cursive style.